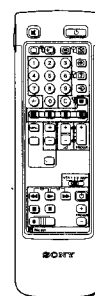
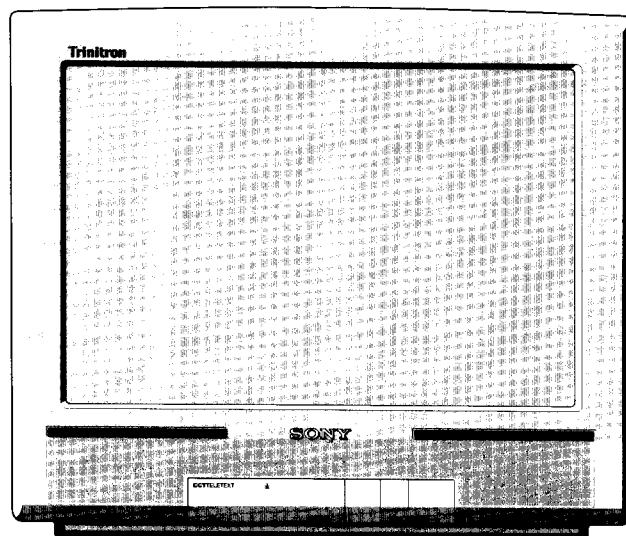


SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-25M1A	RM-837	Italian	SCC-G81U-A	KV-25T1E	RM-837	Spanish	SCC-G82U-A
KV-25T1A	RM-837	Italian	SCC-G81T-A	KV-25M1K	RM-837	OIRT	SCC-G86U-A
KV-25T1B	RM-837	French	SCC-G85T-A	KV-25T1K	RM-837	OIRT	SCC-G86T-A
KV-25M1D	RM-837	AEP	SCC-G77V-A	KV-25T1L	RM-837	Irish	SCC-G83E-A
KV-25T1D	RM-837	AEP	SCC-G77U-A	KV-25T1R	RM-837	OIRT	SCC-G86V-A
KV-25M1E	RM-837	Spanish	SCC-G82V-A	KV-25T1U	RM-837	UK	SCC-G87M-A



TRINITRON® COLOR TV
SONY®

ITEM	MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20, A-H, H1, H2 UHF: E21-E69		PAL, SECAM NTSC3.58/4.43 (video input only)
French	B/G/H, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69		PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69		PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2		PAL NTSC3.58/4.43 (video input only)
OIRT	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69		PAL, SECAM NTSC3.58/4.43 (video input only)
Irish UK	I	25T1L UHF: B21-B69 25T1U VHF: A-C, D-J UHF: B21-B69 Cable Channels S1-S20 Hyper band S21-S41		PAL NTSC3.58/4.43 (video input only)

MODEL	25M1A	25T1A	25T1B	25M1D	25T1D	25M1E	25T1E	25M1K	25T1K/25T1R	25T1L/25T1U
Power Consumption	95W	97W	97W	95W	97W	95W	97W	95W	95W	95W

SPECIFICATIONS

Picture Tube Super Trinitron
Approx. 63 cm (25 inches)
(Approx. 59 cm picture measured diagonally)
110° -deflection

Sound output 10W (music power)
5W (RMS)
Dimensions Approx. 604x549x508 mm
Weight Approx. 31 kg
Supplied accessories Remote Commander RM-837 (1)
Battery R6 (1)

Rear/Front Terminals

[REAR]

- ➡ 21-pin Euro connector (CENELEC standard)
- Input for audio and video signals
- Input for RGB
- Outputs of TV video and audio signals

[FRONT]

- ➡ 2 Video input - phono jack
- ➡ 2 Audio inputs - phono jacks
- 🎧 Headphone jack : stereo minijack

Other features

Teletext (KV-25M1A/25T1B/25M1D/25T1D/25T1K)
Top-Text/Fastext (KV-25T1A/25T1B/25M1D/25T1D/
25T1E/ 25T1K/25T1R)
Fastext (KV-25T1L/25T1U)


[RM-837]

Remote control system infrared control
Power requirements 1.5V ds
1 battery IEC designation
R6 (size AA)
Dimensions Approx. 65x225x21mm (w/h/d)
Weight Approx. 157g (Not including battery)

Design and specifications are subject to change without notice.

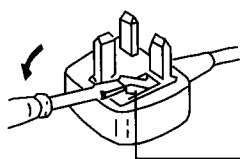
Model name Item	KV-25M1A KV-25T1A	KV-25T1B	KV-25M1D KV-25T1D	KV-25M1E KV-25T1E	KV-25M1K KV-25T1K KV-25T1R	KV-25T1L KV-25T1U
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	OFF	OFF	OFF	OFF	OFF	OFF
Front in (3)	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	ON	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	OIRT	English

WARNING (KV-25T1L/25T1U only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

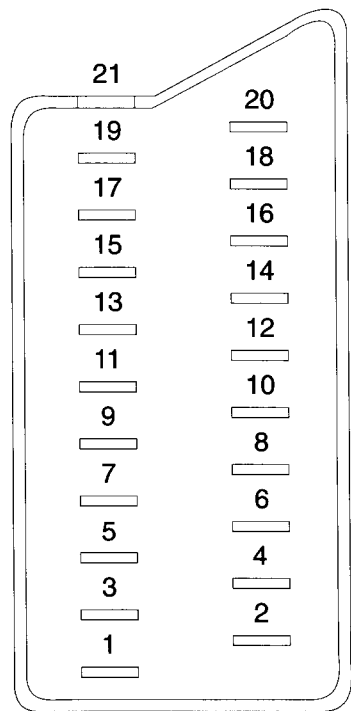
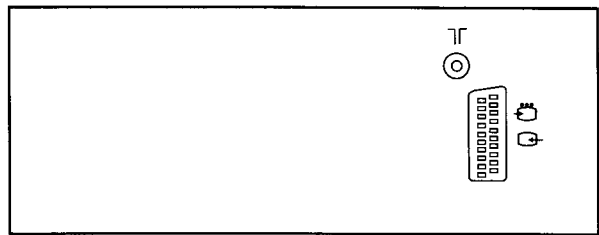
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector ( 1,  2 ,  2)



Pin No.	1	2	4	Signal	Signal Level
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Audio)	
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Blue)	
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Blue input	0.7 ± 3dB, 75 ohms, positive
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More10k ohms Input capacitance : Less than 2nF
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Green)	
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
11	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Green	
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Open	
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Red)	
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Blanking)	
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Red input	0.7 ± 3dB, 75 ohms, positive
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	(S signal) croma input	0.7 ± 3dB, 75 ohms, positive
16	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	Blanking input (Y's signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Video output)	
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ground (Video input)	
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Common ground (plug, shield)	

☐ Connected ☒ Not Connected (Open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.

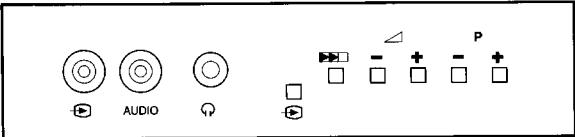


TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL			5. DIAGRAMS		
	Getting Started	6	5-1.	Block Diagrams	29
	Advanced TV Operations	9	5-2.	Circuit Boards Location	34
	Adjusting the Picture	9	5-3.	Schematic Diagrams and Printed Wiring Boards	34
	Advanced Presetting Functions	10		*D Board	39
	Teletext Operation (Only for KV-25T1)	12		*A Board	44
	Connecting Other Equipment	13		*C Board	54
	For Your Information	15	5-4.	Semiconductors	57
2. DISASSEMBLY			6. EXPLODED VIEWS		
2-1.	Rear Cover Removal	16	6-1.	Chassis	59
2-2.	Chassis Assy Removal	16	6-2.	Picture Tube	60
2-3.	Service Position	17			
2-4.	A Board Removal	17	7. ELECTRICAL PARTS LIST		61
2-5.	Extension Board	17			
2-6.	Picture Tube Removal	18			
3. SET-UP ADJUSTMENTS					
3-1.	Beam Landing	19			
3-2.	Convergence	20			
3-3.	Focus	22			
3-4.	White Balance	22			
4. CIRCUIT ADJUSTMENTS					
4-1.	Electrical Adjustments	23			
4-2.	Test Mode 2 :	24			
4-3.	BE-3B Self Diagnostic Software	27			


CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTES SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

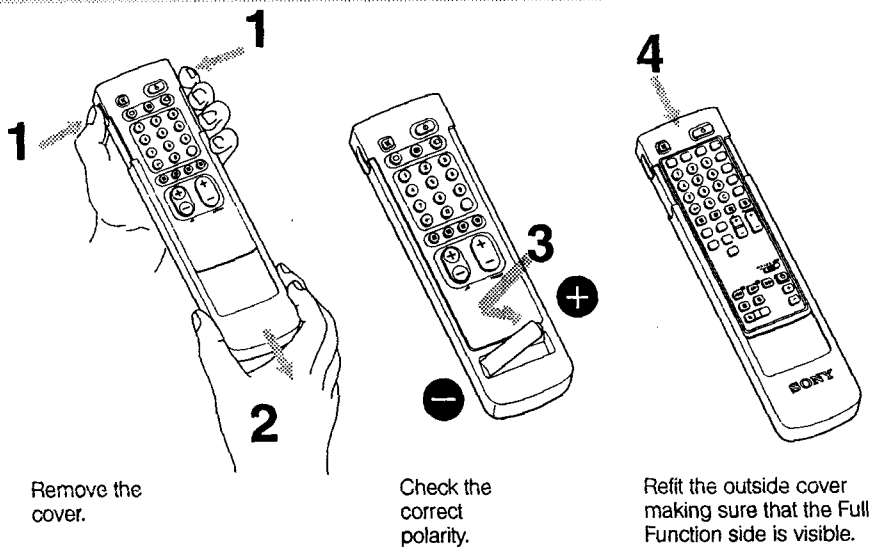
SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

Please open the flap at the front and at the back of the Instruction Manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander.

Inserting the Battery Into the Remote Commander

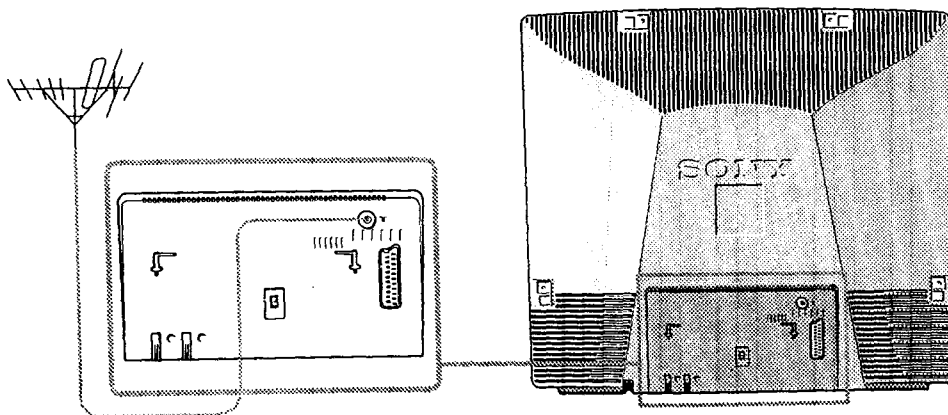


About Battery Life

Under normal operation, a battery will last up to half a year. Always remember to dispose of used batteries in an environmental friendly way.

Connecting the Aerial




Connect the aerial to the TF socket at the rear of the TV. (cable not supplied)



Choosing a Language

(See inside of front cover and back cover)

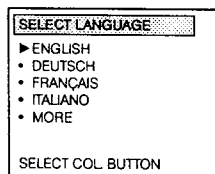
1 Depress ① on the TV.



The TV turns on. If the standby indicator  on the TV is lit, press  or any number button  on the Remote Commander.

2 Press MENU on the Remote Commander.

The SELECT LANGUAGE screen appears.

3 Press one of the colour buttons on the Remote Commander to select a language (Press the white button to display other language alternatives). The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.



Note: From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the green button  then press the white button  to redisplay the SELECT LANGUAGE screen.

Tuning in to Channels

You can tune in up to 60 channels to programme positions either automatically or manually.

auto tuning:

A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.

manual tuning:

Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

Tuning in to Channels Automatically

There are two possibilities for auto tuning;

A. On the TV: hold down   on the front of the TV for 2 seconds


or

B. On the Remote Commander: as follows

1 Press MENU .

2 Press the yellow button .

3 Hold down the red button for 2 seconds,

Note: Press the green button  to cancel.

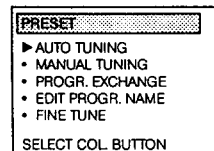
Tuning in to Channels Manually

1 Press MENU .

The MENU screen appears.

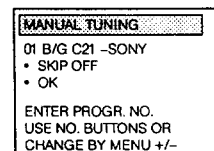
2 Press the yellow button to select PRESET.

The PRESET screen appears.



3 Press the green button to select MANUAL TUNING

The MANUAL TUNING screen appears.



4 Press the number buttons 4 or MENU +/- 9 to select a programme position.

If you use the number buttons 4, enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

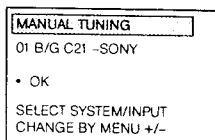
5 Press the green button 7.

Note: Use MENU +/- 9 to select TV system.

You can alternatively select input sources which may be assigned to programme positions.

The display changes as follows:

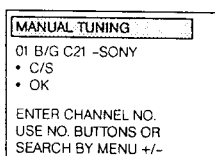
B/G → D/K → AV1 → RGB → AV2



6 Press the green button 7.

Note: If a video input source is selected in step 5, this is now stored.

Refer to step 4 to tune other programme positions.



7 If you have selected B/G in step 5, press the red button 17 to select C (regular channel) or S (cable channel).

8 Press the number buttons 4 or MENU +/- 9 to select the channel number.

If you use the number buttons 4, enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

9 Press the green button 7 to store.

Note: If you want to preset other channels, repeat steps 4 to 9.

10 Press MENU 7 twice to return to the normal screen.

Note: You can skip unused programme positions when selecting programmes with the PROGR +/- buttons 18.

Press the red button 17 to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

Basic TV Operations

Turning the TV on and off

Turning on

Depress 1 A on the TV.

Turning off temporarily

Press 1 10 on the Remote Commander.

The TV enters standby mode and the standby indicator 15 on the front of the TV lights up.

Turning on again

Press 1 9, PROGR +/- 18, or one of the number buttons 4 on the Remote Commander.

Turning off completely

Depress 1 A on the TV.

Note: It is recommended to use 1 A to turn off the TV. This could help you save energy.

Selecting TV Programmes

Press PROGR +/- 18 or press the number buttons 4.

To select a double-digit number

Press +/- 5, then the number buttons 4.

Adjusting the Volume

Press 1 +/- 19.

Muting the Sound

Press 1 1.

To resume normal sound, press 1 1 again.

Displaying the On-screen Indications

Press 1 14 once to display the on-screen indications.

Press again to make the indications disappear.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:

Press 1 +/- 19 to adjust the volume.

Press P +/- 12 to select programme numbers or to turn the TV on from the standby mode.







Press 1 15 to select the input source.

Press 1 16 to preset channels automatically.

Advanced TV Operations

Operating the Menu System






You can adjust picture, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press:	to:
1 MENU 	enter the MENU screen
2 a colour button 	select an item you want to change (The selected item is marked by a triangle.)
3 MENU +/- 	change (or adjust) the contents of the item
4 MENU 	return to the MENU screen
5 MENU  again	return to the normal screen
Press MENU  once or twice whenever you want to return to the normal screen.	

Note: When selecting menus, the picture becomes darker. If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

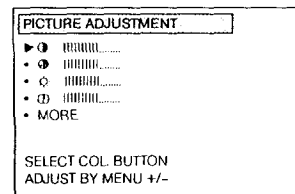
Adjusting the Picture





Although picture is adjusted at the factory you can adjust it to suit your own taste.

- 1** Press MENU .
The MENU screen appears.
- 2** Press the red button  to select PICTURE.
- 3** Press the respective colour button  to select an item.
- 4** Press MENU +/-  to adjust.
- 5** Press MENU  twice or wait until the menu displays disappear automatically to return to the normal screen.

PICTURE ADJUSTMENT

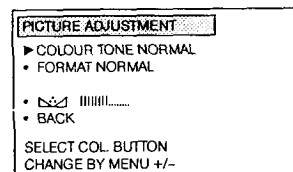
(First Page)





Press colour button	Effect
Red: For Picture 	Less —+— More
Green: For Colour 	Less —+— More
Yellow: For Brightness 	Darker —+— Brighter
Blue: For Sharpness 	Softer —+— Sharper
White:	Next page of PICTURE ADJUSTMENT

PICTURE ADJUSTMENT

(Second Page)








Press colour button	Effect
Red: For Colour Tone	Normal ⇄ Warm (reddish colour tone) ⇄ Cool (blueish colour tone)
Green: For Format	Normal: Normal setting 16:9 Wide screen effect
Blue: For Hue control  (only for NTSC video signals)	Reddish —+— Greenish
White:	Back to first page of PICTURE ADJUSTMENT

Note: Press →•←  on the Remote Commander to reset to the factory preset levels for picture.

Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer.

- 1 Press **MENU** .
The MENU screen appears.
- 2 Press the green button  to select **FEATURES**.
- 3 Press the respective colour button  to select an item.
- 4 Press **MENU +/-**  to change.
- 5 Press **MENU**  twice or wait until the menu displays disappear automatically to return to the normal screen.

FEATURES




FEATURES
<ul style="list-style-type: none"> ▶ SLEEP TIMER OFF • PARENTAL LOCK OFF • TV BUTTON LOCK OFF • DEMO MODE • LANGUAGE
SELECT COL. BUTTON CHANGE BY MENU +/-

Press colour button	Effect
Red: For Sleep Timer (Automatic switch off function)	OFF ⇔ 0:30 ⇔ 1:00 ⇔ 1:30 ⇔ 2:00 (hours) After the selected time the TV set switches itself automatically into standby mode.
Green: For Parental Lock (For preventing children from watching programmes which you consider unsuitable)	OFF: Normal setting ON: The TV-channel you are watching is now blocked. In this way you can prevent undesirable broadcasts from appearing on the screen.
Yellow For TV Button Lock	OFF: Normal setting ON: The buttons on the TV do not function anymore. (The Remote Commander still operates)
Blue: For Demo Mode	ON: A sequence of menu pictures is displayed. Press any button on the Remote Commander to stop the function.
White: For Language	The SELECT LANGUAGE screen appears.





Advanced Presetting Functions

Exchanging Programme Positions

You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24).




- 1 Press **MENU** .
The MENU screen appears.
- 2 Press the yellow button .
The PRESET screen appears.
- 3 Press the yellow button .
The PROGR. EXCHANGE SCREEN appears.

PROGR. EXCHANGE
01 B/G C21 - SONY • NEXT CHANNEL • PREVIOUS CHANNEL • STORE SELECT COL. BUTTON

- 4 Press the white button  repeatedly until the desired programme number (09) appears.
- 5 Press the red or the green button  repeatedly until the desired channel number (C24) appears.
- 6 Press the white button  to store.
Now exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.
- 7 Press **MENU**  twice to return to the normal screen.

Editing Programme Names

You can edit the programme names up to five letters.

- 1 Press **MENU** .
The MENU screen appears.
- 2 Press the yellow button .
The PRESET screen appears.
- 3 Press the blue button .
The EDIT PROGR. NAME screen appears.
The first character flashes.

EDIT PROGR. NAME
01 B/G C21 - SONY • NEXT LETTER • STORE CHANGE BY MENU +/-

-
- 4 Press MENU +/- ⑨ to edit the first letter.**
The first letter changes as follows
A ↔ B ↔ ... ↔ Z ↔ 1 ↔ ... 9 ↔ "-" (space).




-
- 5 Press the red button ⑪ to move to the next letter.**

-
- 6 Repeat steps 4 to 5, until the fifth letter is chosen.**

-
- 7 Press the green button ⑫.**
The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.
-

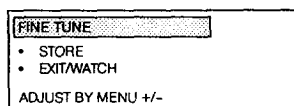
Fine Tuning

You can adjust the receiving conditions by the FINE TUNE function.

-
- 1 Press MENU ⑨**
The MENU screen appears. 

-
- 2 Press the yellow button ⑩.**
The PRESET screen appears.

-
- 3 Press the white button ⑪.**
The FINE TUNE screen appears.



-
- 4 Press MENU +/- ⑨ to adjust the receiving condition.**

-
- 5 Press the red button ⑫ to store the adjustment, or press the green button ⑬ not to store.**
Now the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.
-

Note: If the FINE TUNE screen disappears automatically before you press the red button ⑫, the fine tuned condition is not stored. Repeat steps 1 to 5.

Tuning in to a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset.

-
- 1 Press C ⑬ on the Remote Commander.**
For cable channels press C ⑬ twice. The indication "C" (or "S" for cable channels) appears on the screen.

-
- 2 Enter a double digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).**
The channel appears.
However, the channel is not stored.
-

Teletext Operation (only for KV-25T1)

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

Basic Teletext Operation

Switching Teletext on and off

1 Select the channel which carries the teletext service you wish to view.

2 Press **⏏** (1) to display Teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.



3 Input three digits for the page number using the number buttons (2).
The numbers are displayed on the screen and the requested page appears in a few seconds.

Note: If you make a mistake, type in any three digits, then re-enter the correct page number.

4 Press **⏏** (3) to return to the TV mode.

Notes:

- To change the teletext channels. First press **⏏** (3) to return to the TV mode, then repeat steps 1 to 3.
- If the signal of a TV channel is weak, teletext errors may occur.

Advanced Teletext Operation

Using Fastext

With Fastext you can access pages with one button press. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons (4) on the Remote Commander. Press the corresponding colour button (4) on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

Requesting the Index page

Press **⏏** (1). The Index page appears.

Accessing the next or preceding page

Press **⏏** (PAGE -) or **⏏** (PAGE +) (5). The next or the preceding page appears on the screen.

Superimposing the teletext display on the TV picture

Press **⏏** (1) once if you are in text mode or press **⏏** (1) twice if in TV mode.

To return to the normal teletext display press **⏏** (1) twice.



Preventing a teletext page from being updated or changed

Press **⏏** (HOLD) (2). The HOLD symbol (⏏) appears on the screen and the selected subpage is held until you press **⏏** (1) to cancel.

Enlarging the teletext display

Press **⏏** (16) once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.



Revealing concealed information (e.g. answers to a quiz)

Press **⏏** (REVEAL) (14). The information is revealed. Press **⏏** (14) again to conceal the information.

Watching TV while waiting for a requested page to be displayed

1 Request a new teletext page.

2 Press **⏏** (TEXT CL) (12).
The TV programme is displayed and the symbol **⏏** is displayed at the top of the page.
Note: When the requested page is available the page number is displayed at the top of the screen.

3 Press **⏏** (1) to view the page.

To cancel the request

Display the teletext page, then press **⏏** (1). The request is now cancelled. Press **⏏** (3) to resume TV mode.

Using the Favourite Page system

You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

Storing the Favourite Pages

1 Select the page you would like to store using the number buttons (2).

2 Press **→** (15) twice.
The colour prompts at the bottom of the screen flash.

3 Press any of the colour buttons (4) on the Remote Commander to store the selected page.
The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

Displaying the Favourite pages

1 Press **→** (15).

2 Press the colour button (4) corresponding to the colour prompt onto which the desired page is stored.
The page is requested. (It may take a few seconds to be received).

Note: Step 1 must be taken before every favourite page selection otherwise the normal Fastext facility operates.

Using the Time Function in the TV mode

Press **⏏** (12) to request the time. Press again to cancel the request.

Note: This function is available only when teletext is broadcast.

Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
— 1 [K] (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
— 2/— 2 [H] [I] (AV2)	Audio/video signal	No outputs

To watch a video input picture, press — 2 [H] until the desired video input appears.

To return to the normal TV picture, press — 2 [H] repeatedly or press [] [I].

If you have a decoder, connect it to — 1 [K]

Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal [] of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 19.

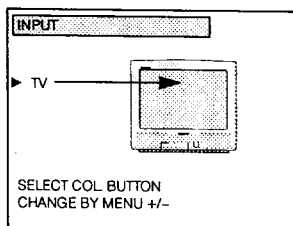
Checking and Selecting the Input Sources Using the Menu

You can display a menu screen to see which input source are selected. You can also change the selecting using this menu.

Checking the Input Sources

1 Press MENU [M].
The MENU screen appears.

2 Press the blue button [B] to select INPUT.
The INPUT screen appears.



Selecting an Input Signal

Press the red button [R] to select INPUT. Press MENU +/- [M] to select the desired input source.

You can select among the following sources:

TV ↔ AV1 ↔ RGB ↔ AV2



Note: Press [R] twice or wait until the menu display disappears automatically to return to the normal screen.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8 mm or VHS VCRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector [N] according to the equipment you want to control:

VTR 1: Beta or VCR

VTR 2: 8mm VCR

VTR 3: VHS VCR

MDP: Video Disc Player

2 Use the buttons [P] to operate the additional equipment.

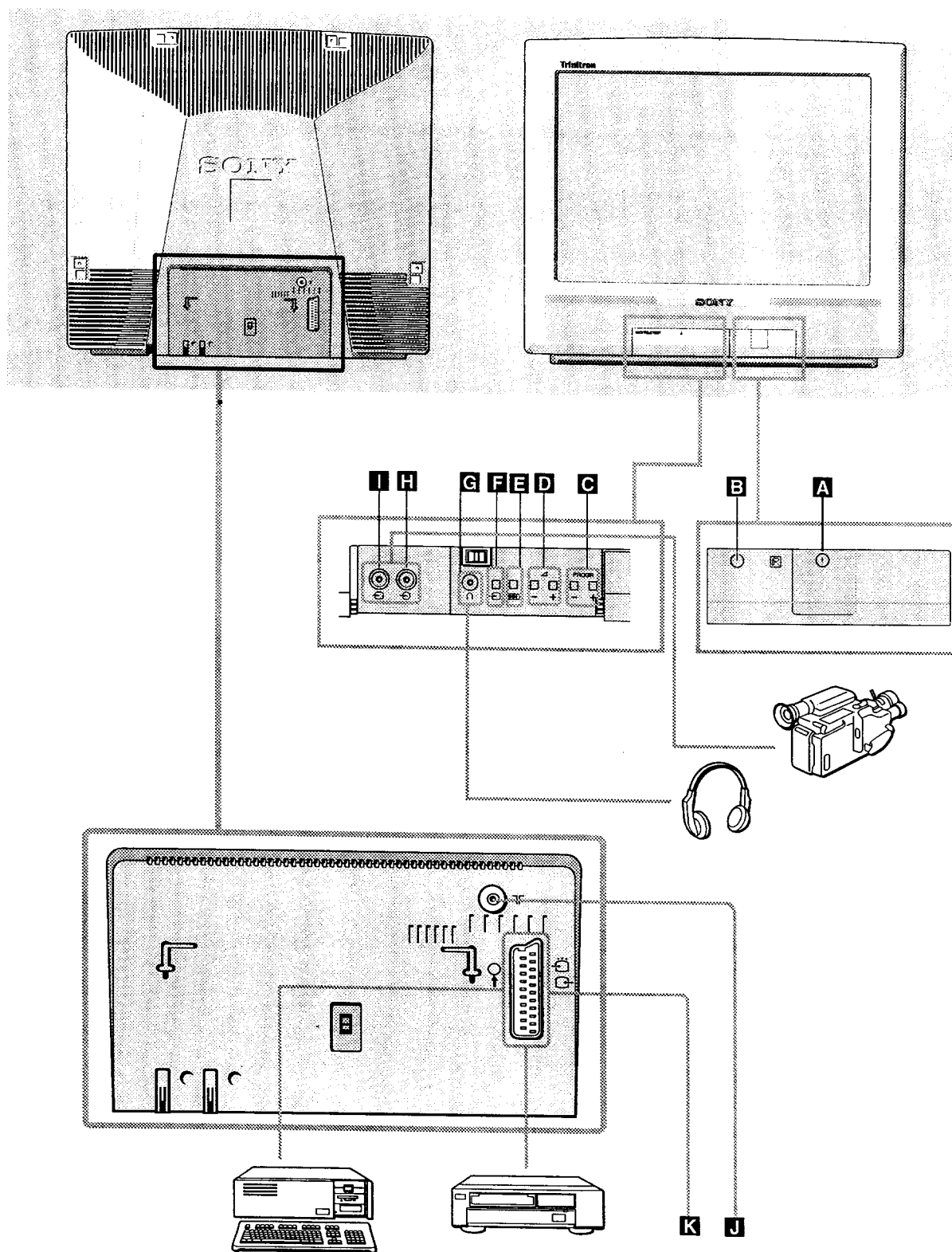
Notes:

- If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MCP selector on the TV Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate
- When you use the [RECORD] (record) button, make sure to press this button and the one to the right of it simultaneously.

Using Headphones

You can utilise headphones. Connect them to the headphone jack [J], then the sound from the speakers goes off.

Note: You can't control the sound adjustment except for volume.



For your Information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

No picture (screen is dark), no sound

- Plug the TV in.
- Press ① **A** on the TV. (If the standby indicator **B** is lit, press **□** ③ or any number button ④ on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using ① **A**.

Poor or no picture (screen is dark), but good sound

- Press MENU ⑦ to enter the MENU screen, and press the red button ⑩, then adjust ⑨ and ⑪.

Good picture but no sound

- Press **△** + ⑨.
- If **⦿** is displayed on the screen, press **⦿** ①.

No colour for colour programmes

- Press MENU ⑦ to enter the MENU screen, and press the red button ⑩, then adjust ⑨.

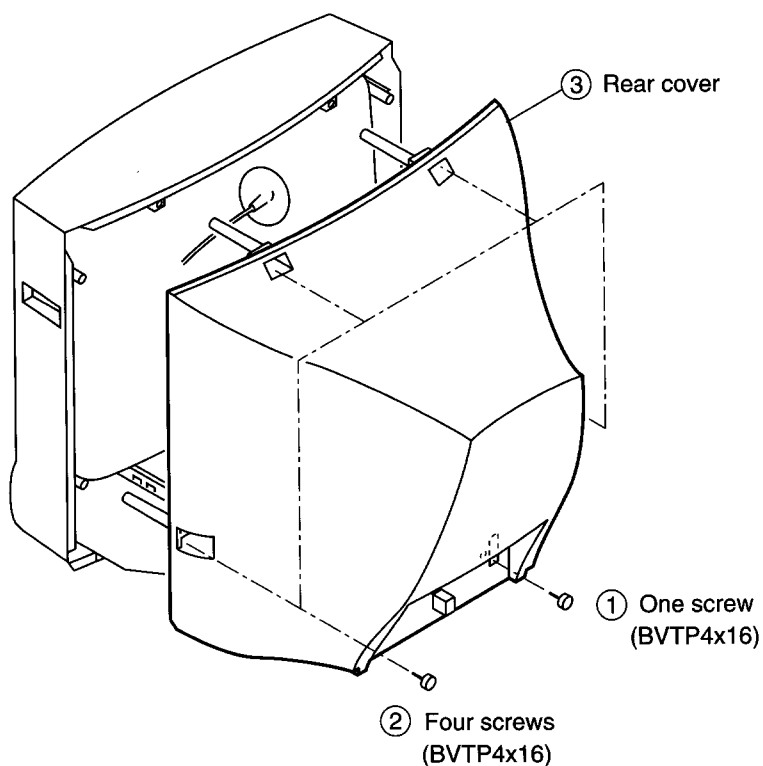
Remote Commander does not function

- Replace the battery.

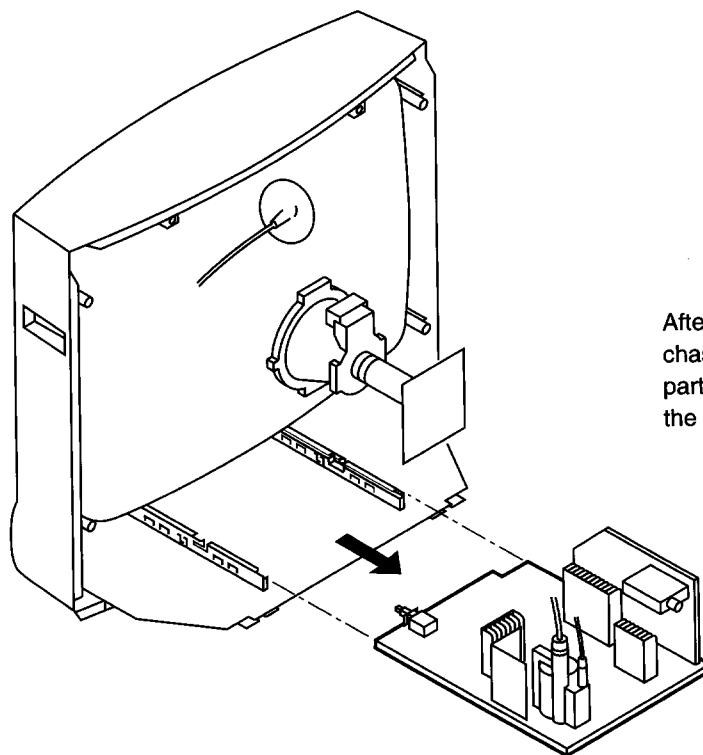
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

SECTION 2 DISASSEMBLY

2-1. REAR COVER REMOVAL

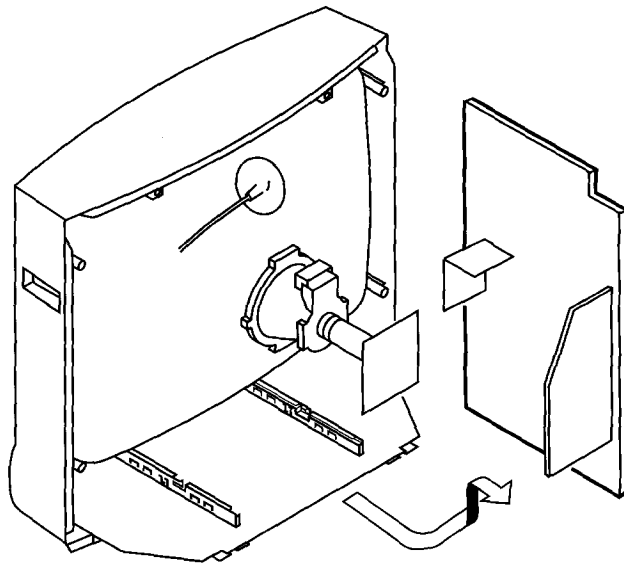


2-2. CHASSIS ASSY REMOVAL

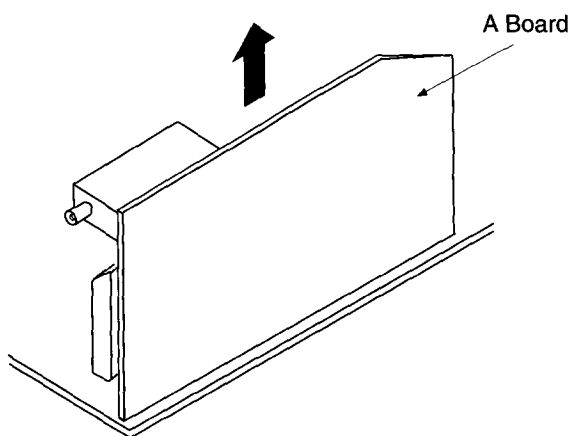


After the assembly of the main chassis, lift and pull out the rear part of the main chassis towards the rear.

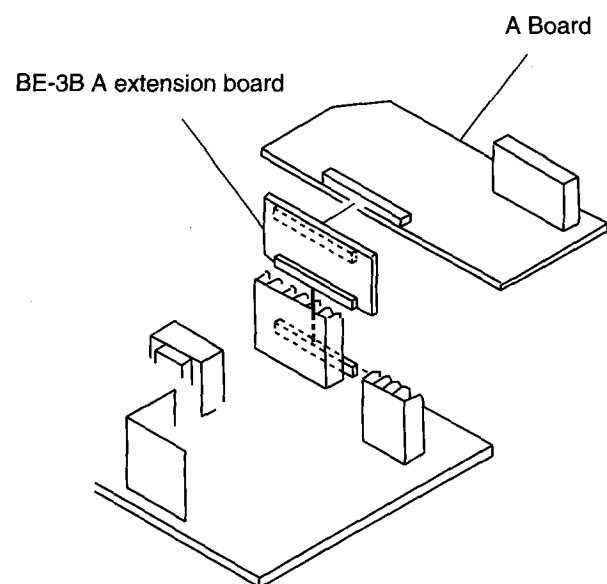
2-3. SERVICE POSITION



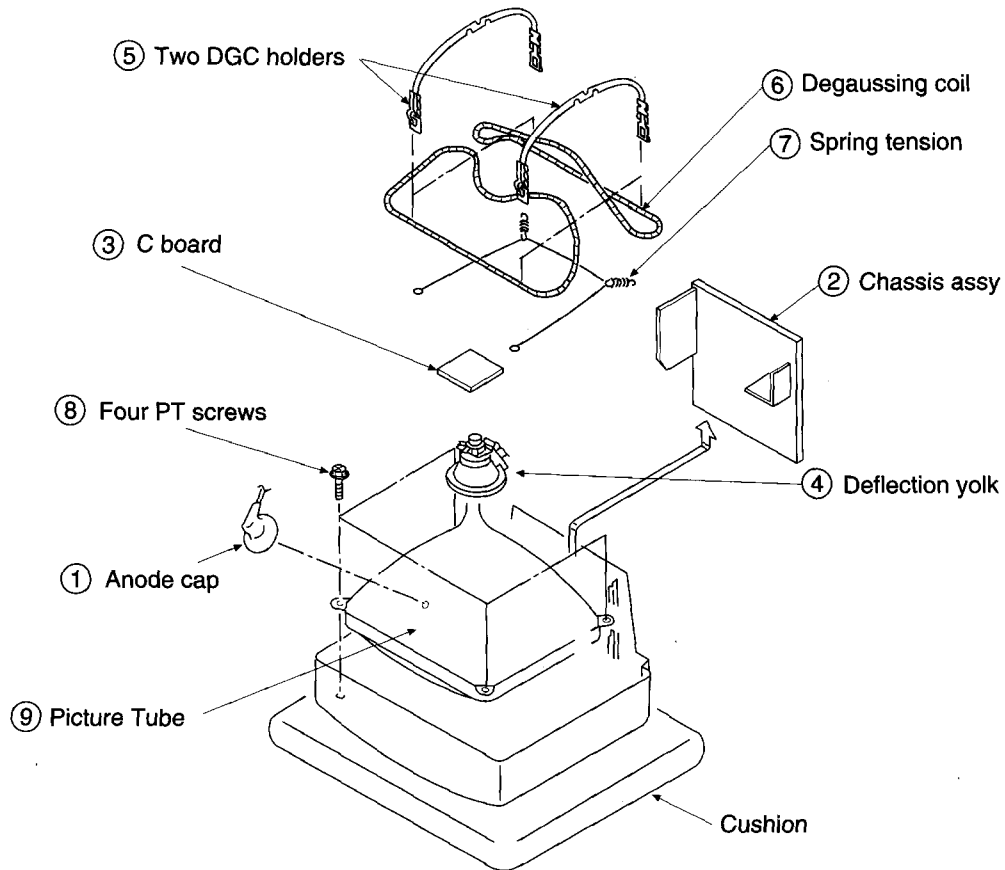
2-4. A BOARD REMOVAL



2-5. EXTENSION BOARD



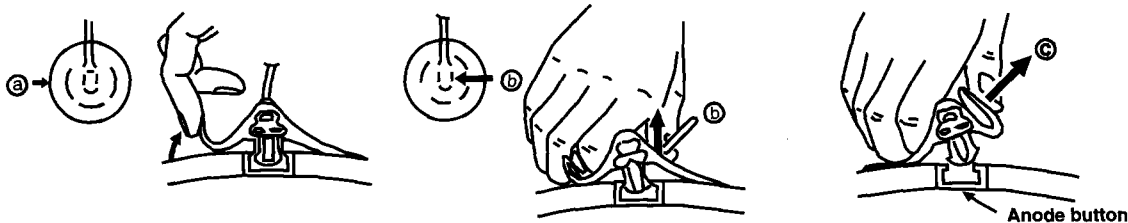
2-6. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

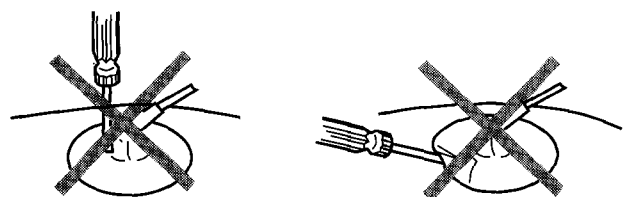
* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

● Contrast 80% (or remote control normal)
 ☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
 CONTRAST } normal
 BRIGHTNESS }
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
4. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

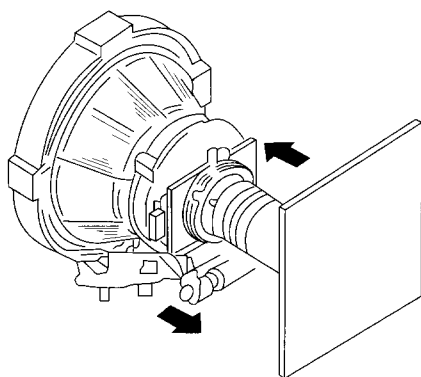


Fig. 3-1

Fig. 3-2

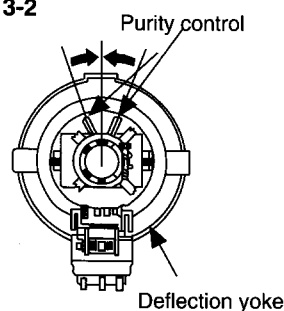


Fig. 3-3

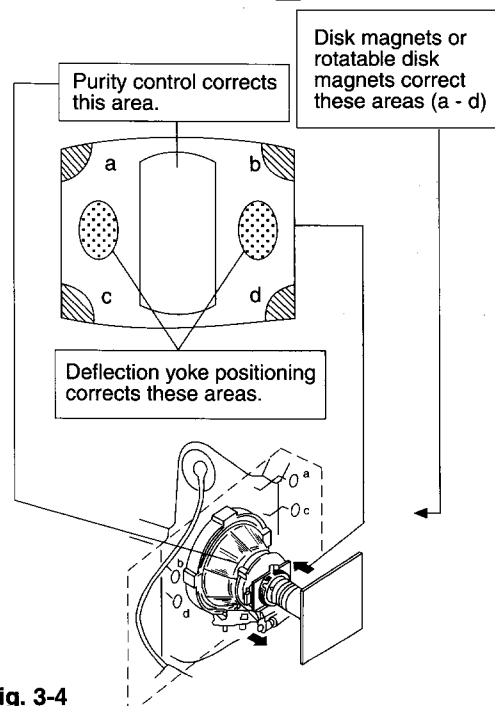
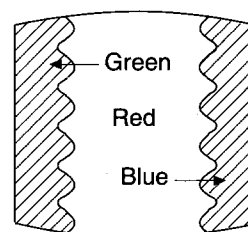


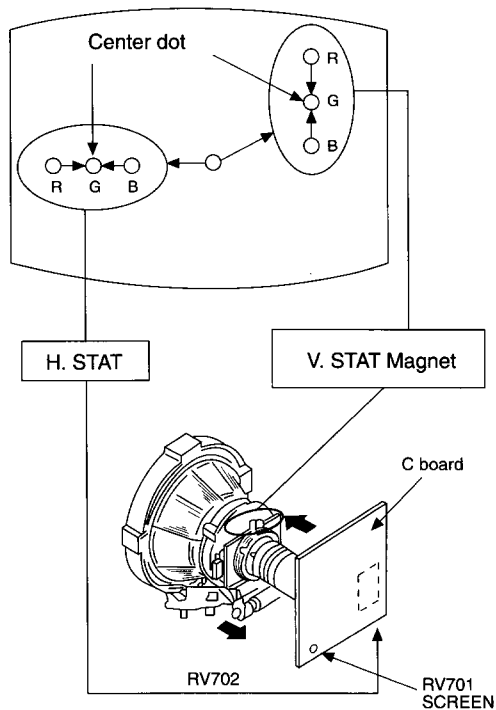
Fig. 3-4

3-2. CONVERGENCE

Preparation:

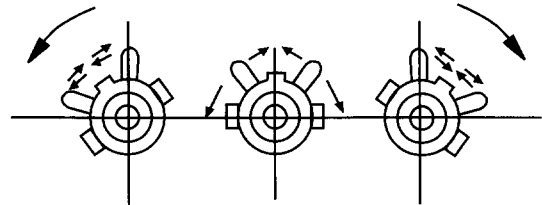
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

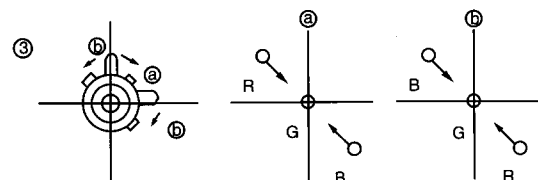
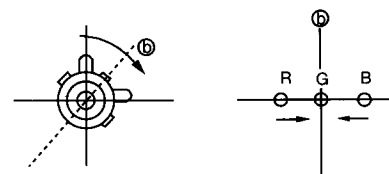
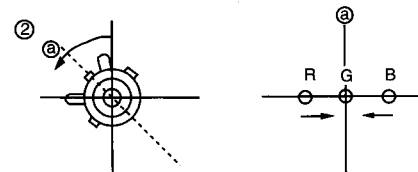
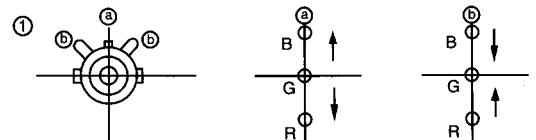


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

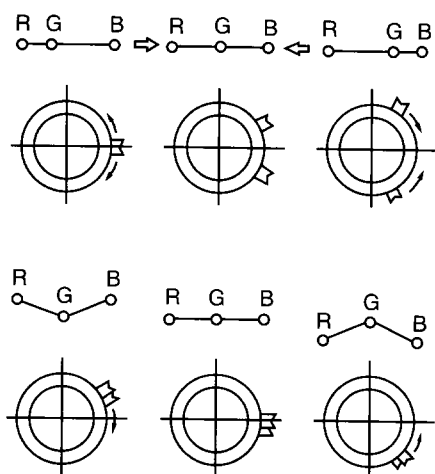
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



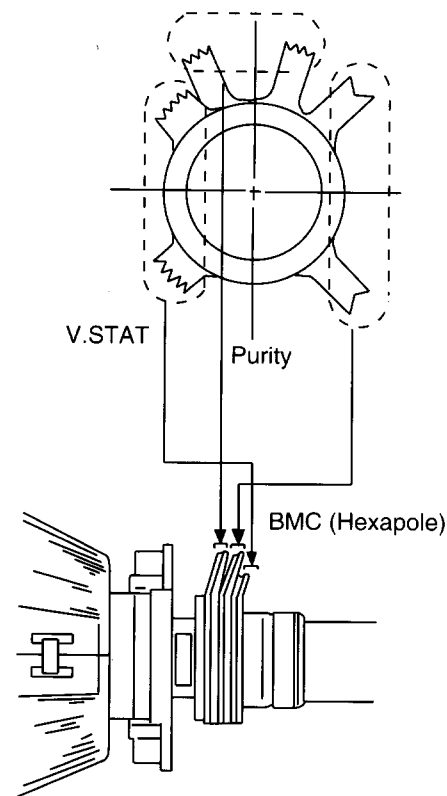
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



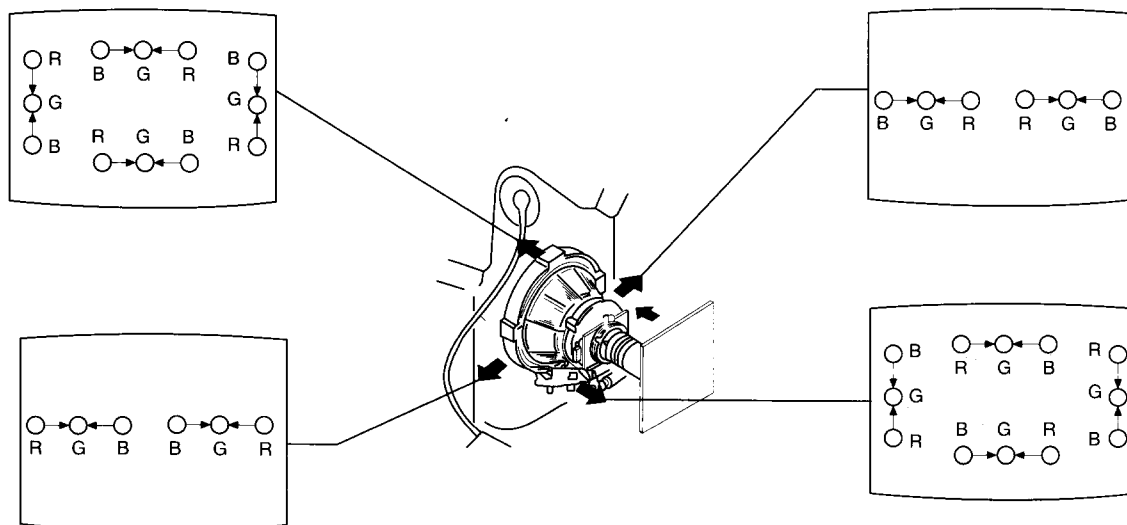
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).



(2) Dynamic convergence adjustment.

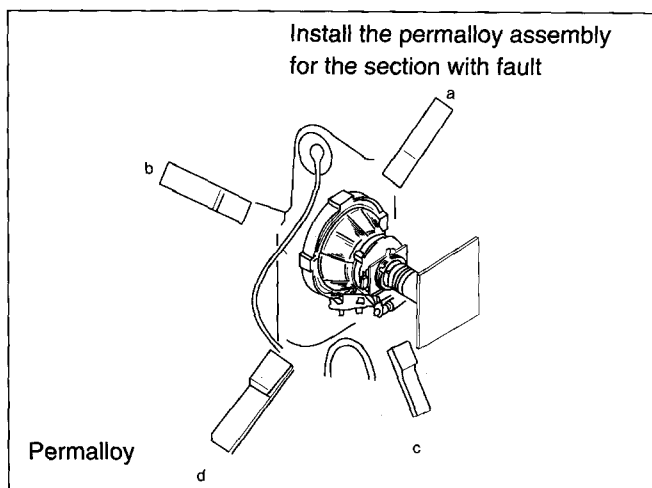
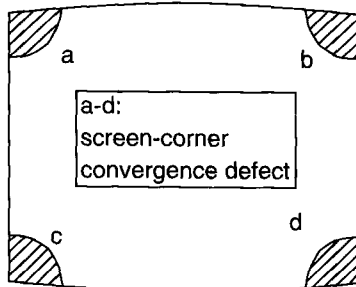
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- Slightly loosen the deflection yoke screws.
 - Remove the deflection yoke spacer.
 - Move the deflection yoke as shown in the figure below and optimize the convergence.
 - Tighten the deflection yoke screws.
 - Re-install the deflection yoke spacer.

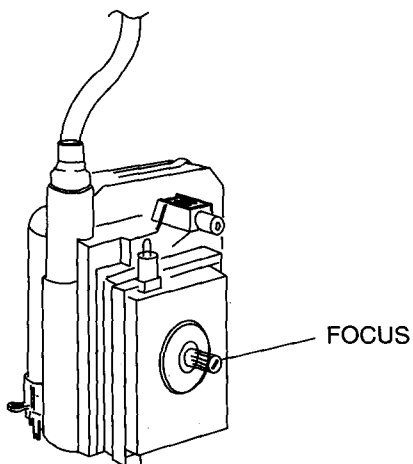


(3) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.

**3-3. Focus**

Adjust the focus to optimize the screen.

**3-4. WHITE BALANCE****Screen G2 Setting**

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.

DEVICE : TDA8366 1

STAT : 12

- ☐ NEXT
- ☐ PREVIOUS
- ☐ OK

USE COLOUR KEYS
SONY TEST MENU.

4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 32.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

SECTION 4

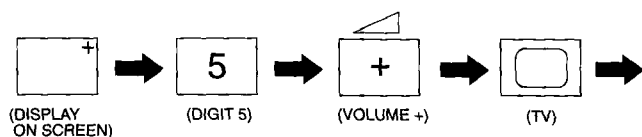
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-837.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



“TT” will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.

DEVICE NAME

STAT : xxxx

☐ NEXT

☐ PREVIOUS

☐ OK

USE COLOUR KEYS
SONY TEST MENU.

4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).

DEVICE NAME

00 ADJUSTMENT : xxx

☐ NEXT

☐ PREVIOUS

SELECT COL.BUTTON
CHANGE BY MENU +/-

5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the and buttons to change the data to comply with each standard.
6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366 and TDA6622.

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interlace	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Corn Pin	Adj	Vid ID	00
Tilt	Adj	EHF Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Src Sel 1	00	AFC Wind	00
Src Sel 2	00	IF Sensity	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6622	INIT VALUE	TDA6622	INIT VALUE
MPX Per	00	Treble	08
Quasi St	00	Bass	09
Bass Exp	00	X Talk Adj	Adj.
H Pulse	00	Mute 1	00
Matrix St	00	Mute 2	01
Bypass	00	C1/2LS	00
Vol L Sp	07	C1/2KH	00
Vol R Sp	07	Mono	01
Vol HP	00	Scart	00
PlI Sync	00	Scart D	00
Mute 3	01	AM	00

4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off

30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	To Activate Rotation Coil Adjustment
39	Check Rotation Coil Adjustment
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Presetting Mode The channel presetting can be done by a Special IR Transmitter (Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by µ-Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

Note : For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

SUB BRIGHTNESS ADJUSTMENT

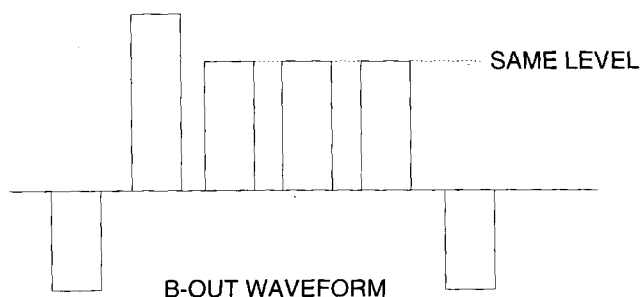
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin ① of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin ③ of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.

**I.F. COIL ADJUSTMENT (T101) - B/G, D/K, I AND L STANDARD FOR CONTINENTAL MODELS.**

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

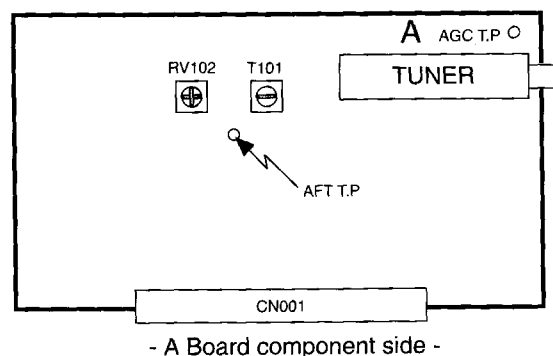
L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODELS.

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

Note : Only adjust RV102 after T101 has been correctly adjusted.

AGC ADJUSTMENT

1. Receive an off- air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.

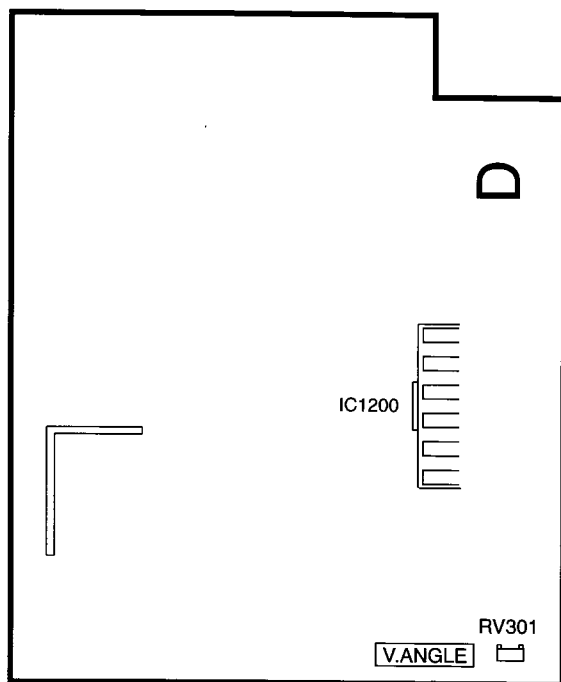


DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

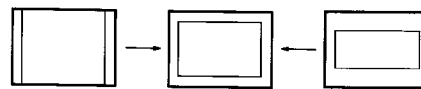
Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TILT	ADJ.
08	V LINEAR	ADJ.
09	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V Centre	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)

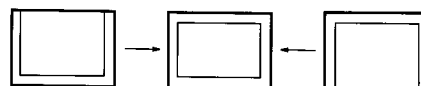


- D Board Component Side -

V SIZE



V CENTRE



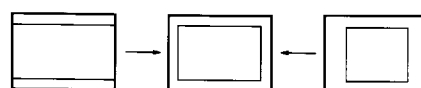
S CORR



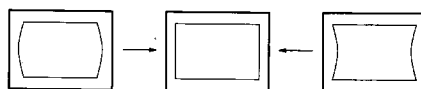
V LIN



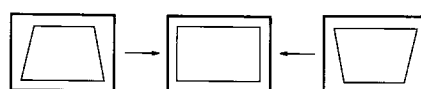
H SIZE



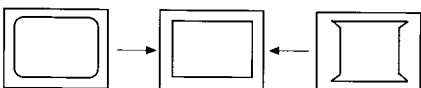
PIN AMP



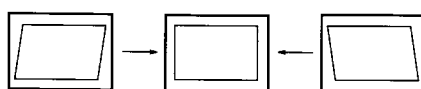
TILT



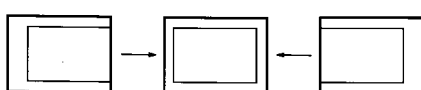
CORR PIN



V ANGLE



H SHIFT



4-3. BE-3B SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3B chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

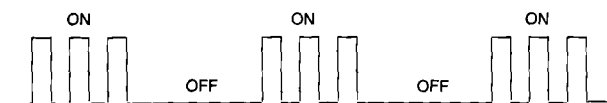
If a fatal error is found the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue operation.

Table 1

Device	LED Error Count	Fatal Error
NVM	2 .. 9	√
Teletext	10	
Jungle	11	√
Video_sw	12	
Tuner	13	√
Nicam	14	
Audio_cont	15	√

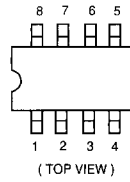
Flash Timing Example : e.g. error number 3.

Stby LED

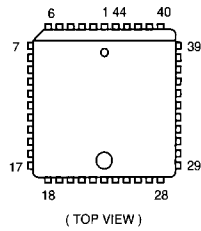


5-4. SEMICONDUCTORS

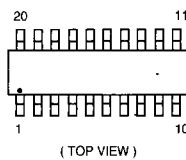
BA7046F-T1



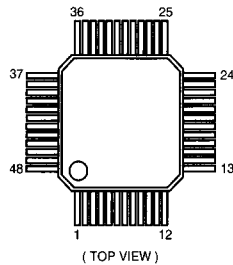
CF70200FN-R/C
CF70203FN-F
CF70204FN-R
CF70209FN-R



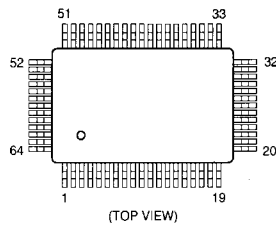
CF72416DW-R
TDA8395T



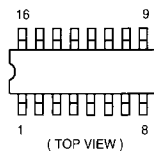
CXA1855Q-T6



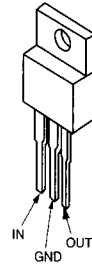
CXP85340A
SAA7283T
TDA8366H/N3
TDA8366T



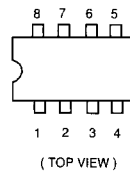
HD14053BFP
MC14053BF-T2



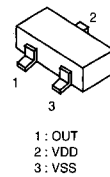
LM2940CT-5.0
LM2940CT-9.0
LM2940T-9.0
MCT7812CT
TA7812S
 μ PC2405HF



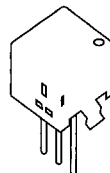
LM393P
TDA2822M
 μ PC393C



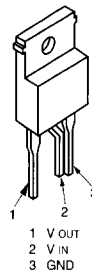
MN1382S-TX



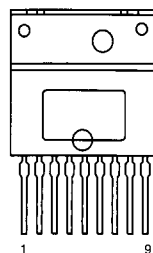
SBX1790-51



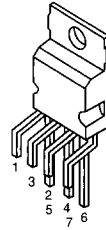
SE135N-LF12



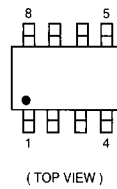
STR-S6708



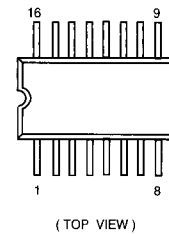
STV9379



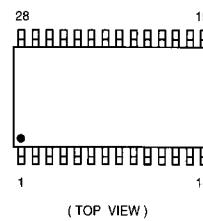
ST24E32M6TR



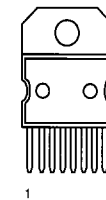
TDA4665T-T



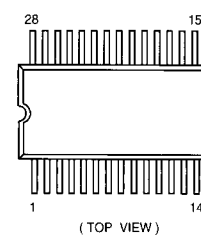
TDA6622-5X-GEG



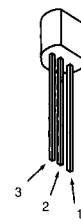
TDA7261



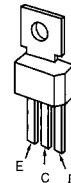
TDA9813T/V3-T3
TDA9814T/V3-T3



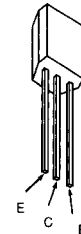
TL750L05CLPR



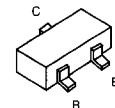
BF871-127



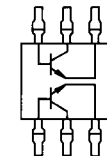
DTA144ES
DTC114ES
DTC143TS
DTC144ES



DTC114EK
DTC123EK
DTC144EK
2SA1037K-R
2SA1162-G
2SC2412K-R



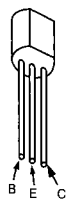
IMX1T110



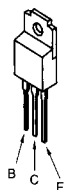
BF421L-AMMO 2SA1091-O
BF421-AMMO 2SA733-K
JA101 2SC2389S-R
JC501TP-Q 2SC2389STP-R
JC501-Q-AMMO 2SC2808S-R
2SC2808STP-R



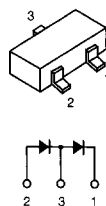
2SC3779C, D-AA



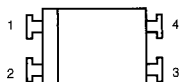
2SC4793
2SD1763A



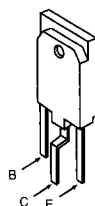
DA204K-T-146



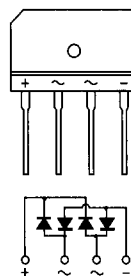
TLP721-GR



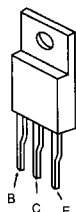
2SC4927-01



D4SB60L

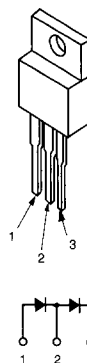


2SA1667
2SC3852A
2SC3298A-Y

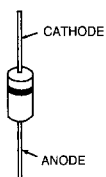
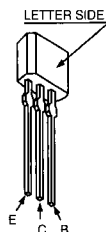


AU-01Z-V1	FML-G12S
EG-1Z-V1	GP08DPKG23
EGP20G	RGP02-20EG23
EL1Z	RGP10GPKG23
EL1Z-V1	RGP15GPKG23
EM1-V1	RU3YX-LF-C4
EU-1-V1	RU4AM-T3
EU-1Z	RU4DS

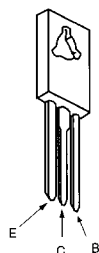
FMS-3FU-LF027-103



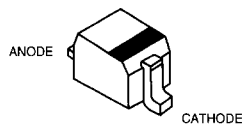
2SA933AS-RT



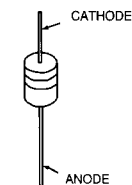
2SC2688-L
2SC2688-LK



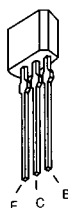
BAS216
DTZ33B
MA8330-TX
1SS355TE-17
1SV214



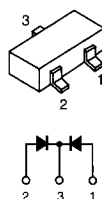
MTZJ-T-77-3.6A MTZJ-T-77-7.5C
MTZJ-T-77-3.9B MTZJ-T-77-9.1
MTZJ-T-77-5.1B MTZJ-T-77-9.1C
MTZJ-T-77-5.6B 1SS133T-77
MTZJ-T-77-6.8C



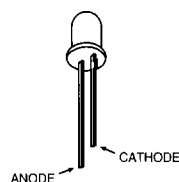
2SC2785-HFE



DAN202K-T-146
UMZ12N-T106

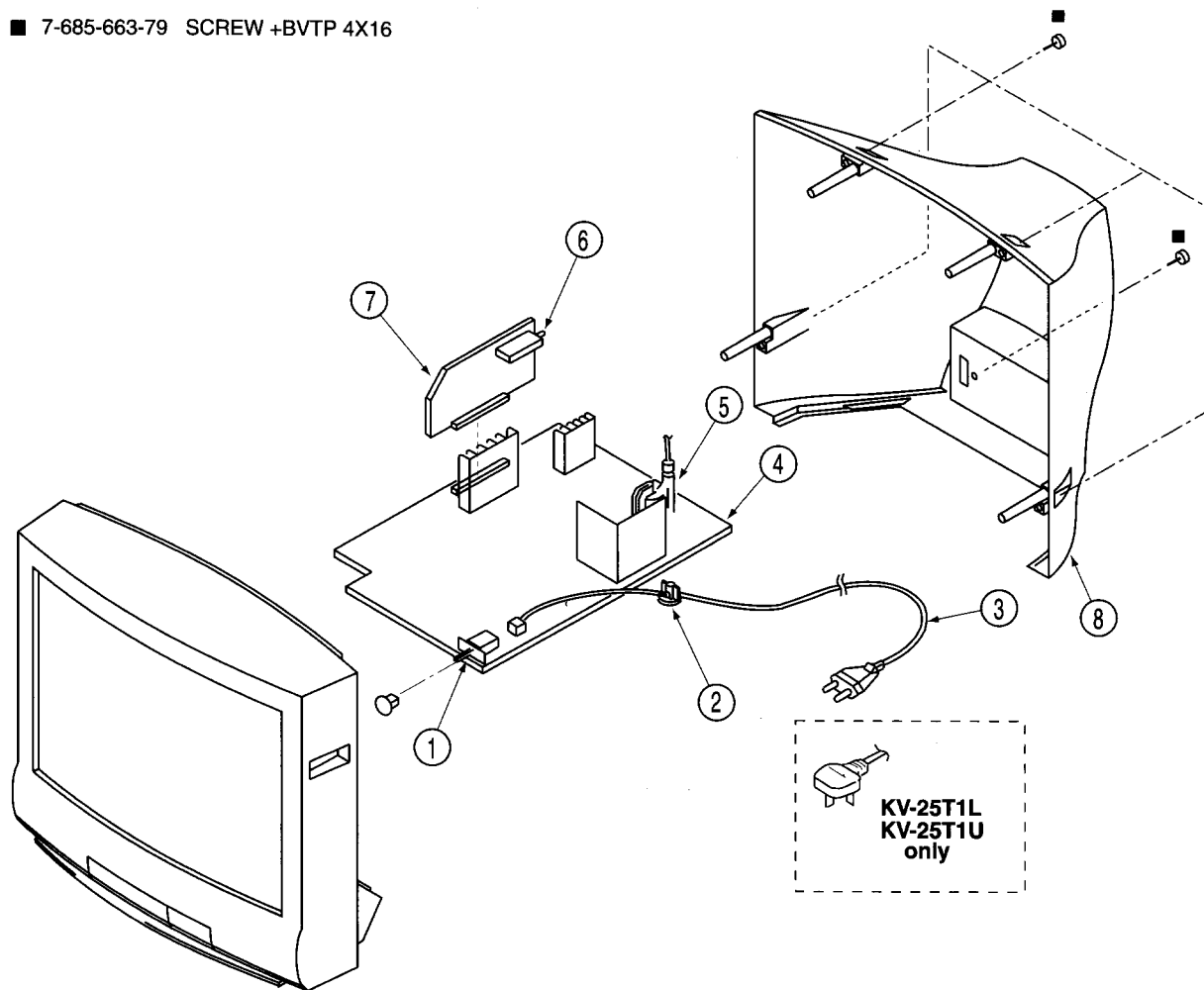


SLA-570KT3F

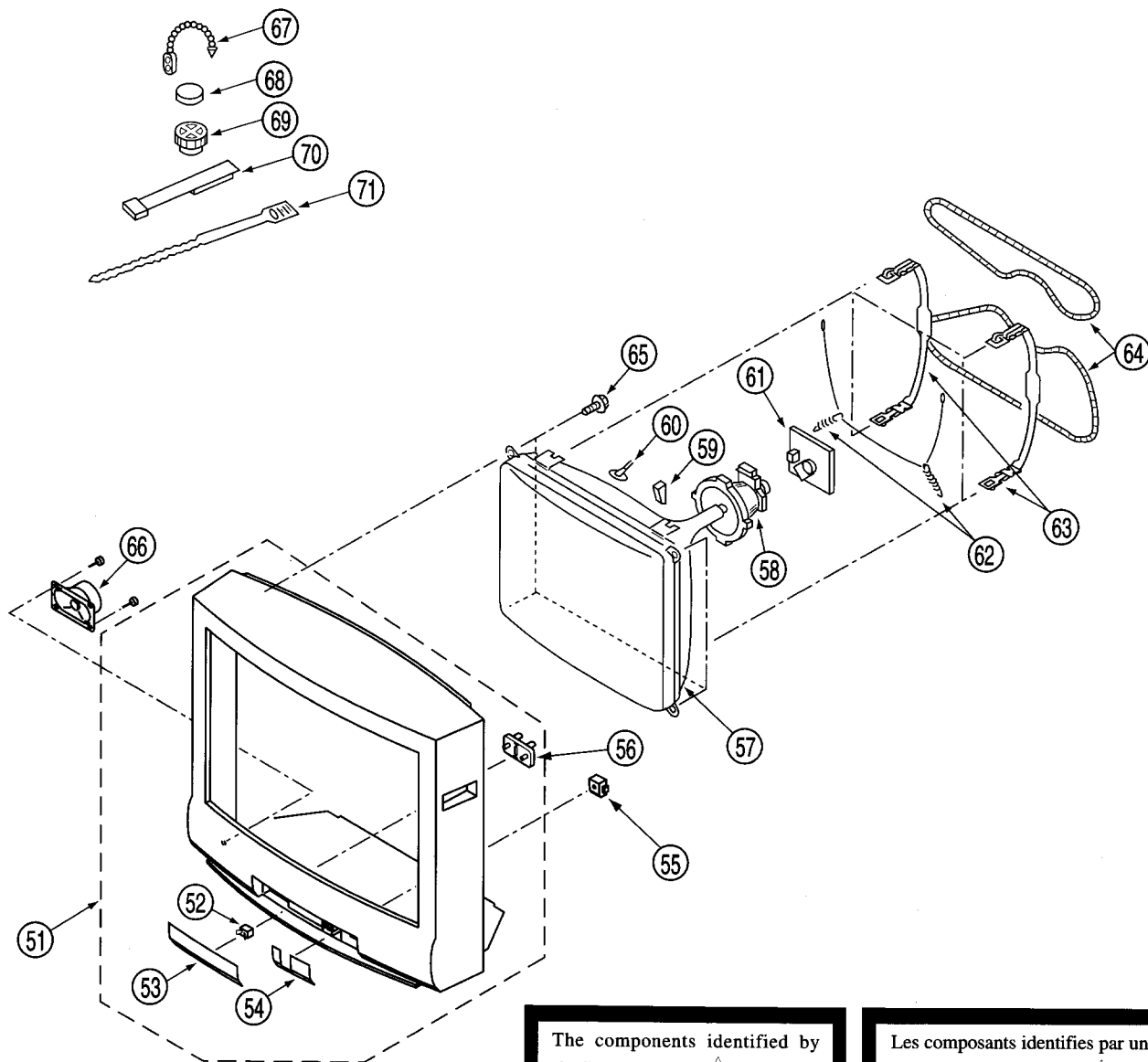



6-1. CHASSIS


■ 7-685-663-79 SCREW +BVTP 4X16



6-2. PICTURE TUBE



The components identified by shading and marked  are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.